VITRIFIED CLAY SEWER AND CULVERT PIPE
FIELD SECTION 1030

1030.1 Scope. To establish procedures for the inspection, acceptance, and reporting of vitrified clay sewer and culvert pipe, and joint materials for these pipes.

1030.2 Apparatus.

(a) Rule with suitable graduations to accurately measure the material to be inspected.

(b) OK - MoDOT stamp.

(c) Weather resistant marking materials.

1030.3 Procedure.

1030.3.1 Vitrified Clay Sewer and Culvert Pipe. Requirements for clay sewer and culvert pipe are described in AASHTO M65. The basis of acceptance are measurement and visual examination of the finished pipe; three-edge bearing tests; absorption or hydrostatic test; and acid resistance when specifically required. If a small quantity of a size and class of pipe is required for a project and tests have not been observed, the pipe may be accepted by manufacturer's certification to AASHTO M65. This method of acceptance is only to be used until observation of tests can be arranged.

1030.3.1.1 Random measurements are to be made of length, diameter, wall thickness, and joint dimensions. Visual examination of clay sewer and culvert pipe is to be performed on each piece offered for use on Department projects. As the clay pipe is inspected, each accepted piece is to be marked with an "OK-MoDOT" stamp and each rejected piece is to be marked with a single line using a weather resistant marking material on the outside, near one end of the pipe. Visual examination and marking may be performed either at the source or at destination.

1030.3.1.2 Three-edge bearing tests should be observed on each size and class of pipe furnished for Department projects. The tests are to be performed in accordance with AASHTO T281 at a frequency of approximately every two years or as deemed necessary.

1030.3.1.3 Absorption samples are to be taken from pipe broken in three-edge bearing and submitted to the Laboratory for testing. Size of sample is specified in AASHTO T281. SiteManager is to be used when submitting samples to the Laboratory.

1030.3.1.4 Hydrostatic tests may be performed in lieu of absorption tests. If hydrostatic tests are performed they should be at the same frequency as three-edge bearing tests and in accordance with AASHTO T281. When hydrostatic tests are used as a basis of acceptance, a notation that effect should be added to the report of three-edge bearing tests.

1030.3.1.5 Acid resistance tests are only performed when required in a contract. When required, samples are to be taken in accordance with AASHTO T281 and submitted to the Laboratory for testing.

1030.3.2 Joint Materials. A hydrostatic test to determine conformance with specifications of joint materials and joint design may be performed at the same frequency as the three-edge bearing test. This test, when performed, is to be in accordance with ASTM C425. The contractor is required to furnish manufacturer's certification in conformance with Specification Sec 1030.2 for each shipment of pipe.

1030.4 Report. The report is to indicate acceptance, qualified acceptance, or rejection. Appropriate remarks, as described in General Sec 7.1.2 of this Manual, are to be included in the report to clarify conditions of acceptance or rejection.

1030.4.1 Three-edge bearing tests or hydrostatic tests of pipe are to be reported on a form similar to Exhibit 1030-A of this Section. The District shall provide its own forms. Distribution is to be as follows:

Division Engineer, Materials
Operations Engineer

1030.4.2 All clay pipe and related joint materials are to be reported on through SiteManager. Acceptance reports shall contain a statement under the Test Results section of the report such as "Three- edge bearing and absorption (or hydrostatic) test results on file in district Operations Office". The joint materials should be listed in the report an the manufacturer's certification retained in the district office. Rejection reports shall contain a brief explanation of causes of rejection .

Distribution of reports for materials purchased under a Department purchase order is to be as described in Field Sec 2001 of this Manual .

Source: Ajex Clay Pipe Co. Date: 5/11/71

Location: Ajax, Missouri

REPORT OF TESTS ON CLAY PIPE
AASHTO M65 & T281

Nominal Size	Length In. [mm]	Crushing Strength psi [Kpa]		Thickness of Barrel In.[mm]		Thickness of Barrel In. [mm]		Deph of Socket In. [mm]		Inside Dia. Socket In. [mm]		Thickness Socket In. [mm]	
		Req,	/act,	Min.	Act.	Min.	Act.	Min	Act	Min.	Act.	Min.	Act.
8"	59.50"	11,000	12,000	9.25	9.75	0.75	0.98	2.25	2.63	10.50	10.81	0.50	0.69
8"	59.50"	11,000	12,000	9.25	9.75	0.75	0.94	2.25	2.63	10.50	10.88	0.50	0.69
8"	59.44	11,000	12,000	9.25	9.75	0.75	0.94	2.25	2.75	10.50	10.81	0.50	0.69
10"	59.00"	12,000	9,000	11.50	11.875	0.88	1.06	2.38	2.88	12.75	13.20	0.56	0.75
10" Retest	59.25"	12,000	13,000	11.50	11.76	0.88	1.06	2.38	2.88	12.75	13.19	0.56	0.75
10" retest	59.00"	12,000	12,250	11.50	11.88	0.88	1.06	2.38	2.88	12.75	13.25	0.56	0.75
10"	59.50"	12,000	13,000	11.50	11.88	0.88	1.06	2.38	3.00	12.75	13.25	0.56	0.75
10"	59.00"	12,000	13,250	11.50	11.88	0.88	1.06	2.38	3.00	12.75	13.13	0.56	0.75
12"	59.00"	13,000	13,750	13.75	14.00	1.06	1.19	2.50	3.13	15.13	15.63	0.69	0..81
12"	59.00"	13,000	13,500	13.75	14.00	1.06	1.19	2.50	3.25	15.13	15.63	0.69	0.81

Remarks:

EXHIBIT 1030-A